

Inzpire Limited Selected as Partner of Choice for Remotely Piloted Aircraft System (RPAS) Methane Detection and Measurement Trials

Inzpire Limited has been selected as the trials partner of choice for QLM Technology's RPAS-mounted methane detection and measurement sensor.

Inzpire's Technical and Strategic Services Division will work with QLM Technology (QLM) to assess the ability of its new Light Detection and Imaging (Lidar) camera to detect and quantify methane emissions when mounted on an RPAS.

The camera uses an eye-safe infrared semiconductor laser and single photon detection to count individual gas molecules from more than 150 metres away. Scanning the laser over the environment builds a 3D picture of objects and gas molecules, showing exactly where a leak is and how big it is.

So far, Inzpire has provided expertise in a range of disciplines to the project including concepts of employment and requirements definition and management; development flight trials planning, management and execution; and the selection, procurement and operation of a suitable RPAS in order to operate the camera safely in an airborne environment.

Initial trials on the equipment were conducted at Bedford Aerodrome in July 2021; in total, 48 flights were flown which provided positive and expected results. Further development trials are planned to enhance the capability in the future.

The trials are supplementary to the Innovate UK Single Photon Lidar Imaging of Carbon Emissions (SPLICE) project being led by QLM. SPLICE is a 2-year project with multiple academic and industrial partners working to advance QLM's gas visualisation solution to full commercial readiness.

Jonny Priest, Inzpire's director of operations said: *"Inzpire is hugely excited to be working with QLM on this project, one that could revolutionise the management of methane leaks across many industries.*

"Inzpire consistently seeks to find opportunities to use our expertise in order to support customers with innovative solutions. To be able to support this QLM project, which could have such a positive impact on the global challenge to minimise climate change, is extremely rewarding to us".

Murray Reed, CEO of QLM said, *"Working with Inzpire will enable a new means of deploying our gas imaging solution for methane emissions monitoring. There are many areas of the oil and gas value chain where airborne inspections are already established as the best approach, and many more that will benefit from RPAS deployment.*

"Inzpire's proven expertise in deploying RPAS will enable our customers to conduct far more complete and regular inspection of their assets and help meet their critical gas emissions targets".

According to the [United States Environmental Protection Agency](https://www.epa.gov/gmi/importance-methane)¹, methane is the second most abundant greenhouse gas that is influenced by humans. In addition, it accounts for about 20 percent of global emissions and is more than 25 times as potent as carbon dioxide at trapping heat in the atmosphere. In its report published in August 2021, the [United Nations Intergovernmental Panel on Climate Change](https://www.ipcc.ch/2021/08/09/ar6-wg1-20210809-pr/)² stated the importance of methane emissions in short-term efforts to mitigate climate change, and that strong and sustained reductions in methane emissions would be crucial to achieving this.

¹ <https://www.epa.gov/gmi/importance-methane>

² <https://www.ipcc.ch/2021/08/09/ar6-wg1-20210809-pr/>

As governments therefore continue to increase regulation and emissions monitoring requirements across industries, companies must be able to detect and measure accurately the extent of their methane gas emissions if they are to focus their efforts on reducing them. Sources of emission can be intermittent and widely distributed, meaning existing equipment is often not fit for purpose. QLM is seeking to meet industry requirements for more practical and effective approaches to detect and quantify emissions that are cost-efficient and which can be deployed at scale.

Inzpire Limited

Founded in 2005, Inzpire is a multi-award-winning supplier of advanced defence training, technical services and cutting-edge mission systems. The company is a trusted partner of the UK MOD and employs highly experienced former military personnel who work alongside defence engineers and business professionals to deliver operationally credible solutions to military, private and public sector customers. Find out more at www.inzpire.com.

Inzpire Limited's Technical and Strategic Services Operational Business Unit (OBU)

Inzpire's Technical and Strategic Services OBU has personnel embedded in UK service commands, delivery teams and MoD headquarters. They provide continuity, experience and technical knowledge that supports military output both in the UK and internationally.

The OBU specialises in equipment capability development and assessment; integrated test, evaluation and acceptance plans; mission data; electronic warfare; and concept development to both military and civilian customers.

QLM Technology Ltd

QLM is a Bristol-based start-up which was created out of the desire to create opportunities for organisations to achieve Net Zero.

The company was founded by CTO Xiao Ai as he carried out postgraduate research into single photon Lidar gas detection at the University of Bristol. Aware of the ever-growing need to understand comprehensively the extent of emissions of methane and other key greenhouse gases, he realised that his research could help enable organisations worldwide to achieve Net Zero through mitigation of greenhouse gas emissions. Find out more at: <https://qlmtec.com/>.

**ENDS
IMAGE BELOW**



Image taken during the recent trials at Bedford Aerodrome. Image: Inzpire Limited

Interview Requests

Inzpire Limited will be exhibiting at DSEI 2021. If you wish to set up an interview during the exhibition to learn more about Inzpire's support to QLM's ground-breaking methane detection trials please contact our PR representatives for the show:

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